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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/042,918	01/11/2002	Paul Joseph Stewart	200-1453	7687

7590 07/29/2005

Daniel H. Bliss
Bliss McGlynn P.C.
Suite 600
2075 West Big Beaver Road
Troy, MI 48084

EXAMINER

PALADINI, ALBERT WILLIAM

ART UNIT	PAPER NUMBER
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2125

DATE MAILED: 07/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/042,918

Applicant(s)

STEWART ET AL.

Examiner

Albert W. Paladini

Art Unit

2125

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 January 2002.
2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) ☐ Claim(s) _____ is/are allowed.
6) ☒ Claim(s) 1-19 is/are rejected.
7) ☐ Claim(s) _____ is/are objected to.
8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 9/03 to 10/04.
4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-19 are rejected under 35 U.S.C. 102(b) as being anticipated by Huston (6146143).

Referring to figure 1 and on lines 48 through 64 in column 1, Huston discloses a haptic user interface 8, a user input device 3, feeding into a computer 1 for virtual interactive design of vehicle mechanisms.

As discussed on lines 39 through 50 in column 4, database 11 depicted in figure 2 contains the digital models of the vehicle mechanisms and the various simulation environments, discloses by Huston.

On lines 21 through 41 in column 11, Huston discloses the software program 10, which performs the evaluation of the vehicles dynamics resulting from the haptic inputs into interface 8, and the driving conditions.

Huston does not explicitly mention a haptic end effector device as recited in the claims. However, since the purpose of the end effector device is to transmit information between the user and the digital model, and since all of the haptic inputs from user interface 8 are transmitted to the computer 1, the haptic end effector device is inherent in the invention.

Relevant Prior Art

3. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Langlais (5184956) discloses a computer, which can display sequences of still pictures or moving pictures, which are employed for revealing and explaining the operation of the vehicle controls to a user. The computer records the state of the different controls on which the user produces action, such as the ignition key, the lighting and warning controls, the position of the steering wheel, of the pedals, of the gearshift lever, of the hand-brake, of the safety-belt. It also carries out modeling of the vehicle dynamics in real time and modeling of engine, transmission, clutch, braking, road-holding and steering functions. An algorithmic treatment of this type makes it possible to compute at each instant the new state of the vehicle, that is to say the position, the orientation, the speed as well as the state of the different instruments and indicators as a function of the control movements imparted by the user, of the conditions related to the simulated external environment and of the previous state of the vehicle.

DeGroat (5277584) discloses a vehicle simulator with controls, such as a gear shift, an accelerator pedal, brake pedal, clutch pedal and steering wheel. Operation of each of these controls selectively energizes responsive devices on frame to simulate vehicle motions and vibrations. The frame is supported on a base by springs which permit movement about X, Y and Z-axes. Pneumatic cylinders interconnect the base and frame and are energized to cause selected movements about the axes. These cylinders include a front cylinder, a back cylinder, a left cylinder, a right cylinder. Inflatable pods are provided at each corner of the base which raise the base off the floor at the start-up and are selectively deflated to simulate, incline, grade and banking of the road during operation of the simulator. A first electric vibrator motor is connected to the base.

Art Unit: 2125

Rosenberg (6636161) discloses a haptic feedback interface with isometric and isotonic capability coupled to a host computer that displays a graphic environment that may be applied for simulating the control of a vehicle in 3D space.

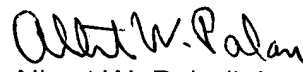
Kind (6712175) discloses a steering system for a motor vehicle with the capability of simulating a steering resistance or restoring torque where a hand-torque actuator provides haptic feedback at the steering wheel.

4. Any inquiry concerning this communication or earlier communication from the examiner should be direct to Albert W. Paladini whose telephone number is (571) 272-3748. The examiner can normally be reached from 7:00 to 3:00 PM on Monday, Tuesday, Thursday, and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Leo P. Picard, can be reached on (571) 272-3749. The official fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0956.

July 25, 2005


Albert W. Paladini
Primary Examiner
Art Unit 2125